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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/349,473	07/09/99	KOITABASHI	N 1272.7910-DI
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MM12/1228
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EXAMINER

DO, A

ART UNIT

PAPER NUMBER

2853

DATE MAILED: 12/28/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/349,473

Applicant(s)

KOITABASHI ET AL.

Examiner

An H. Do

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 9-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☒ received in Application No. (Series Code / Serial Number) 08/579,241.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 14) ☒ Notice of References Cited (PTO-892) 17) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 15) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 18) ☐ Notice of Informal Patent Application (PTO-152)
- 16) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 19) ☐ Other: _____.

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims 9-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Ishinaga et al (US 5,731,828).

Ishinaga et al discloses the similar ink-jet apparatus employing the ink-jet head having the plurality of heaters corresponding to one ejection opening comprises the driving circuit for applying respective pulses to the plurality of heaters on the basis of information relating to the ink temperature for bubbling and ejecting the ink through one ejection opening (Column 5, lines 25-31); heaters are identical to ejection opening, size and heating characteristics with respect to each other (Column 5, lines 11-16); and heaters are different to ejection opening, size and heating characteristics with respect to each other (Figure 19, elements 2A,2B,44).

Ishinaga et al also discloses the identical method of adjusting the ink ejection amount by mutually shifting bubbling timing at respect of the plurality of heaters for causing bubbling of ink to eject ink through the ink ejection opening (Column 7, lines 14-36) and the method of stabilizing the ink ejection amount by mutually shifting bubbling

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timing at respect of the plurality of heaters upon application of respective pulses to the plurality of heaters for causing bubbling of ink to eject ink through the ink ejection opening so as to adjust the ink ejection amount (Column 4, lines 48-54).

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Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to An Do whose telephone number is (703) 308-0525. The examiner can normally be reached on Monday - Friday from 8:00am to 4:30pm.

If any attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Barlow Jr., Art Unit 2853, can be reached on (703) 308-3126. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3431.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



AD
December 6, 1999



John Barlow
Supervisory Patent Examiner
Technology Center 2800